

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

MEC Northwest

Oregon Manufacturing Extension Partnership

Mec Northwest Improves Productivity By Reducing Equipment Set-Up Times

Client Profile:

MEC Northwest, founded in 1999, assembles electronic circuit boards. The company is located in Milwaukie, Oregon and employs 54 people.

Situation:

MEC Northwest recently acquired a new high-speed surface mount technology (SMT) line to expand their capabilities in circuit board assembly. The entire production line for this operation contained a stencil printer (for applying solder paste), two SMT machines, a reflow oven, and an inspection station. Change-over times ran anywhere from 30 minutes to 2 hours depending on the nature of the change and how many people were available to assist. The resulting machine downtime began impacting productivity. The company contacted the Oregon Manufacturing Extension Partnership (OMEP), a NIST MEP network affiliate, for assistance.

Solution:

OMEP evaluated MEC Northwest's situation and presented a proposal for a set-up reduction project. OMEP proposed reducing machine downtime to ten minutes or less, reducing set-up labor to a minimum, and improving work practices. MEC Northwest accepted OMEP's proposal, and the organization set to work. MEC Northwest assigned a team of employees to the project, and OMEP educated it on the goals of the project and the techniques that would be used to achieve those goals. Next, the entire existing set-up process was videotaped and documented in a spreadsheet, identifying all tasks and assigning a time value for each one. The team analyzed the documented set-up tasks to see if they could either be eliminated, moved to an external operation, and/or reduced in time. Based on this analysis, OMEP and the team designed a new set-up was designed, simulated, and run in production. The team, working with OMEP, made significant changes to the process that eliminated system downtime and significantly reduced set-up time.

Results:

Reduced distance walked on the line from 1262 to 408 feet.
Eliminated system downtime.
Reduced time between board runs to 12 minutes.
Collected staff recommendations for further improvements.

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Testimonial:

"We were very pleased with the timeliness, continued follow-up, response and accomplishments achieved. Pricing was appropriate and our company benefited from the knowledge obtained from working with Oregon Manufacturing Extension Partnership."

Chuck Eggers, Manufacturing Manager